

## REMARKS

In the Office Action dated September 9, 2005, the Examiner maintained the species election requirement between seven different identified species. Applicant repeats its oral election to proceed with species A. The Examiner identified claims 1, 6, 16 and 24 as generic in paragraph 1, but in paragraph 3, the Examiner withdrew claims 24-26 from consideration, asserting that they describe elements not shown in Figures 1-4. However, the elements identified by the Examiner are described in connection with the arrangement shown in Figures 1-4. specifically, with regard to the turbulence reducing device referenced in claim 24, this is first described at page 7, in the first full paragraph, where it states:

For example, in the pipeline illustrated in FIG. 1, often times the upstream pipe section 12 comprises an elbow leading directly into the pump 16. If the flow of liquid into the pump 16 is turbulent, then the operation of the pump is less efficient and in some cases, damage to the pump could result. In these situations, it would be beneficial to introduce a turbulence reducing device, such as those disclosed in U.S. Patents 5,197,509 and 5,323,661, and incorporated herein by reference, upstream of the turbulence creating device to reduce or eliminate any turbulence that might otherwise be created.

One of the turbulence reducing devices disclosed in U.S. Patents 5,197,509 and 5,323,661, to be incorporated in the arrangement shown in FIG. 1, is arranged to impart a rotational motion to the fluid, which is required in claim 24. Thus this element does not comprise a species different from the species shown in FIG. 1, but rather is to be used in conjunction with the arrangement shown in FIG. 1.

The “elbow arranged upstream of the pump” of claim 25 is also contained in the passage quoted above, referring to the arrangement of FIG. 1.

Therefore, applicant requests the Examiner to reconsider the withdrawn status of claims 24-26 and to consider them along with claims 1-23.

The Examiner objected to claim 1 and required that the word “said” be inserted into line 5 of claim 1 “to prevent double inclusion” of “fluid” in the claim. Applicant has so amended claim 1, in order to clarify the claim, but without any intent of narrowing the scope of the claim.

The Examiner rejected claims 1, 2, 4-8, 10-12, 14 and 15 as being obvious over the teachings of McCall in view of the teachings of Richter '321 and Kozyuk.

Every prior art flow straightening device located by the Examiner, including the one taught by McCall, is located in a rigid pipe structure, which rigid structures are incapable of absorbing at least one of shock, vibration and alignment in the conduit. In fact, rigid pipe structures transmit shock and vibration and must remain in alignment or damage occurs to the conduit. The Examiner has merely pointed to the teachings of Richter '321 for a structure used in a pipeline that is capable of absorbing at least one of shock, vibration and alignment. However, the Examiner provides no teaching or suggestion in either reference to make the combination now made by the Examiner, solely with the benefit of hindsight.

McCall does not suggest in any fashion that the section of pipe or conduit 10 be constructed so as to absorb at least one of shock, vibration or alignment, as required by independent claims 1 and 6, or that such a construction would provide any benefits or advantages to the structure actually taught by McCall. In fact, McCall discloses an arrangement for making "highly reliable" measurements of the fluid and fluid flow in a conduit, and making the conduit out of a material that was not rigid would prevent the ability to provide the "highly reliable" measurements that the McCall structure was specifically designed to provide. Therefore, McCall actually teaches away from providing a structure that could absorb at least one of shock, vibration or alignment.

The structure of the device disclosed in Richter '321 is designed to absorb or compensate for movements in the conduits of a pipeline, and Richter '321 does not discuss the condition of the flow of fluid through the connector, or the desire to straighten the flow or render it less turbulent. In fact, the shape of the connector of Richter '321 would result in a more turbulent flow leaving the connector than entering the connector, yet Richter '321 does not suggest or mention that a flow straightener is necessary or even desirable. Since neither combined reference provides even the slightest hint of the desirability of combining the two teachings, and

in fact, the McCall reference teaches away from such a combination, applicant submits that the Examiner's combination of McCall and Richter '321 is improper and does not render claim 1 or claim 6 obvious.

Kozyuk is relied on by the Examiner for the teaching of providing a valve in a pipeline. Kozyuk is not concerned with either the laminar condition of the flow through the pipeline or the absorption of shock, vibration or alignment in the pipeline. Therefore, Kozyuk does not provide any of the missing teachings, nor does it provide the suggestion to combine any teachings from McCall and Richter '321.

Since the Examiner has not demonstrated that it would have been obvious to provide the claimed combination, which includes a flow straightening device and a conduit section constructed to absorb at least one of shock, vibration and alignment, applicant respectfully submits that claim 1 is allowable as now presented, and requests the Examiner to reconsider the rejection and to indicate that independent claims 1 and 6 are allowable.

With claims 1 and 6 being allowable, each of their dependent claims are also allowable, which comprise claims 2-5 and 7-15.

Specifically with regard to claims 5 and 15, which further requires that the fluid conduit section have a length less than 5 times the diameter, the Examiner has selected only a portion (one half) of the length of the disclosed conduit 10 described by McCall. The middle of this length, being the mating flanges 16, 18, connect the two halves of the enlarged conduit together, and is improperly sized to connect to the conduit to which this conduit section is connected (the fire hydrant and the fire hose). The Examiner never identified where the valve taught by Kozyuk was to be placed in the system, and for this rejection to stand, the Examiner would have to put Kozyuk's valve between the two sections of the conduit 10, at the joint between the flanges 16 and 18, and there is absolutely no teaching that would suggest that a valve be placed at that location, which would completely destroy the ability for the McCall structure to make the

“highly reliable” measurements that are the important feature of the McCall device. Thus, McCall does not teach such a placement, and in fact would teach away from such a placement.

Claims 3 and 9 are rejected with further reference to Rosecrans in addition to the combination used to render claims 1 and 6 obvious. The deficiency of the rejection of claims 1 and 6 is described above, and for that reason, the rejection of claims 3 and 9 should also be withdrawn. Further, the Examiner relies on Rosecrans only for the teaching of using a flexible metal hose for the claimed conduit section. However, Rosecrans provides no teaching or suggestion of utilizing a flow straightening device in combination with a flexible metal hose, and thus suffers the same limitations as the teachings of Richter ‘321, described above, in this regard. Therefore, these claims should be indicated as being allowed as well.

Claim 13 is rejected with further reference to Arnaudeau in addition to the combination used to render claim 11 obvious. The deficiency of the rejection of claim 11 is described above, and for that reason, the rejection of claim 13 should also be withdrawn. Further, the Examiner relies on Arnaudeau only for the teaching of using which states: “The flow straightener may have ‘thick’ fins in the hydrodynamic sense of this adjective.” Such a statement certainly does not overcome the deficiencies noted above relative to the combination of claim 11, and application submits that this vague statement, which is not otherwise depicted or explained, does not teach a person of ordinary skill in the art to provide fins with a hydrodynamic shape as defined in claim 13. For this additional reason, the rejection of claim 13 should be withdrawn and this claim should be indicated as being allowed.

Claims 16 and 20-23 were rejected over McCall in view of Kozyuk. Claim 16 has been amended to incorporate the limitations of original claim 23, which is now canceled. Amended claim 16, like claims 5 and 15 discussed above, requires that the fluid conduit section have a length less than 5 times the diameter. The Examiner has selected only a portion (one half) of the length of the disclosed conduit 10 described by McCall. The middle of this length, being the mating flanges 16, 18, connect the two halves of the enlarged conduit together, and is

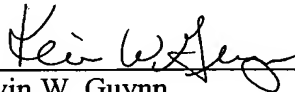
improperly sized to connect to the conduit to which this conduit section is connected (the fire hydrant and the fire hose). The Examiner never identified where the valve taught by Kozyuk was to be placed in the McCall system, and for this rejection to stand, the Examiner would have to put Kozyuk's valve between the two sections of the conduit 10, at the joint between the flanges 16 and 18. There is absolutely no teaching that would suggest that a valve be placed at that location, which would completely destroy the ability for the McCall structure to make the "highly reliable" measurements that are the important feature of the McCall device. Thus, McCall does not teach such a placement, and in fact would teach away from such a placement.

For at least these reasons, applicant respectfully submits that amended claim 16 is patentably distinguishable over the combination suggested by the Examiner and that claim 16 should be indicated to be allowed, along with its dependent claims 17-23.

Although claims 24-26 have been withdrawn by the Examiner, and have not been specifically addressed by the Examiner with respect to their patentability, applicant submits, as discussed above, that they should be reintroduced to the application, and that they should also be indicated as being allowed.

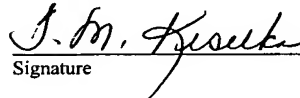
In view of the amended claims submitted herewith and the explanatory comments above, applicants respectfully submit that the rejections set forth by the Examiner have each been addressed and overcome. Applicant requests the Examiner to reconsider the rejections and to indicate all of the claims as allowed.

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